REMARKS

Claims 4-13 and 15-18 remain in the application. Claims 1-3 and 14 have been cancelled. Claims 13 and 15 have been amended and are in independent form.

First, claim 15 stands rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent 2,914,137 to Sykes ("the '137 reference"). Applicants respectfully traverse the rejection.

The '137 reference discloses a drive shaft 25 rotatably supported in a crankshaft balancer housing structure 16. A driven gear or sprocket 27 is fixedly secured to an input end of the drive shaft 25 for driving the drive shaft 25. An oil pump 40 is mounted on a second end of the housing structure 16 opposite the sprocket 27 and is driven by the drive shaft 25. A counterweight member 29 is mounted to the drive shaft 25 and a second counterweight member 31 is mounted on a lay shaft 33. The counterweight members 29, 31 are provided respectively with meshed gears 34, 35, so that the counterweight members 29 and 31 will rotate in opposite directions.

In response, independent claim 15, as amended, claims "an oil pump drive assembly consisting of ... a balance shaft disposed in the housing and extending axially between a gear end supported in the first bore on the sprocket side of the housing and an opposite distal end supported in the second bore on the pump side of the housing, the gear end secured to the driven gear for rotation with the driven gear in response to rotation of the drive shaft for dampening vibrations associated with the operation of the automobile engine, and the balance shaft supporting two axially spaced offset masses;

The '137 reference does not disclose a balance shaft supporting two axially spaced offset masses. In the '137 reference, the drive shaft 25 includes one counterweight 29 mounted thereto and the lay shaft 33 includes one counterweight 31 mounted thereto. Thus, the counterweights 29, 31 are mounted on different shafts and rotate in opposite directions.

As a result, the '137 reference clearly does not disclose a balance shaft extending axially from a driven gear for rotation with the driven gear in response to rotation of a drive shaft for dampening vibrations associated with the operation of an automobile engine, the balance shaft supporting two axially spaced offset masses, as required by claim 15 of the above-captioned application.

Therefore, Applicants respectfully request that the rejection of independent claim 15 under 35 U.S.C. § 102(b) as being anticipated by the '137 reference be withdrawn.

Second, claims 4-11, 13 and 16-17 stand rejected under 35 USC 103(a) as being unpatentable over Sykes in view of in view of United States Patent Application Publication 2001/0023623 to Killion ("the '623 reference"). Applicants respectfully traverse the rejection.

The disclosure of the '137 reference is set forth above. The '623 reference discloses an engine 52 including a balance shaft 50, a crankshaft 58, and a camshaft 60. The camshaft 60 is operatively coupled to the crankshaft 58 such that the camshaft 60 rotates in response to rotation of the crankshaft 58. The balance shaft 50 includes a drive gear or sprocket 72 attached to it and

the camshaft 60 includes a drive gear 84 attached to it. The meshing of gears 72 and 84 causes the balance shaft 50 to rotate in a direction opposite to that of the crankshaft 58 and thus counterbalance the vibrations caused by the engine 52.

In response, Applicant has amended independent claim 13 to set forth "an oil pump drive assembly consisting of ... a balance shaft extending axially from the driven gear for rotation with the driven gear in response to rotation of the drive shaft for dampening vibrations associated with the operation of the automobile engine, the balance shaft supporting two axially spaced offset masses."

Neither of the cited references disclose the combination as specifically set forth in amended claim 13 wherein the balance shaft consist of supporting two axially spaced offset masses. Therefore, Applicants respectfully request that the rejection of claims 4-11, 13 and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over the '137 reference in view of the '623 reference be withdrawn.

Additionally, claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the '137 reference in view of Killion '623 and further in view of United States Patent 6,183,230 to Beardmore et al. ("the '230 reference"). Applicants respectfully traverse the rejection.

Claim 12 depends from amended independent claim 13. As stated above, none of the cited references disclose the combination as specifically set forth in amended claim 13 wherein the balance shaft consist of supporting two axially spaced offset masses. Therefore, Applicants respectfully request that the rejection of claim 12 under 35 U.S.C. § 103(a) as being unpatentable

over the '137 reference in view of Killion '623 and further in view of the '230 reference be withdrawn.

Finally, claim 18 stands rejected under 35 USC 103(a) as being unpatentable over Sykes in view of Beardmore '230. However, claim 18 ultimately depends from amended independent claim 15. As stated above, independent claim 15 has been amended to overcome the rejection noted by the Examiner. Therefore, Applicant respectfully request that the rejection of claim 18 under 35 USC 103(a) is now improper and should be withdrawn.

It is respectfully submitted that this patent application is in condition for allowance, which allowance is respectfully solicited. If the Examiner has any questions regarding this amendment or the patent application, the Examiner is invited to contact the undersigned.

The Commissioner is hereby authorized to charge any additional fee associated with this Communication to Deposit Account No. 50-1759.

Respectfully submitted,

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